

**ADDENDUM NO. 1**  
**Nebraska State Office Building**  
**Fans and Diffusers**  
**301 Centennial Mall South**  
**Lincoln, Nebraska - 2014**  
**May 2014 / OA Project No. 012-2549**

**Design Professionals:**

Olsson Associates – Mechanical & Electrical Engineers

**DATE OF ISSUANCE: June 10, 2014**

The Project Manual and Project Drawings dated May 2014, for the above referenced project, are amended by this addendum.

**NOTICE:** This Addendum is issued to all interested prospective bidders as an amendment to the project manual or other parts of the bidding (contract) documents for the above named project. Reference to this Addendum must be included in the Bid proposal. The information contained herein shall be fully incorporated into the contract documents as though originally included therein.

**PROJECT CHANGES**

**1) Refer to the Advertisement For Bids**

Add: "The location of the pre-bid meeting within the State Office Building itself is TBD, location signs will be posted in the building lobby day of the meeting."

**2) Refer to Sheets MD1.0, MD2.0, M1.0, M2.0 – Lower Level Mechanical Plans**

In reference to these sheets (not attached), label OA (Outside Air) Shafts dimensions as 14'-1/2" X 3'-6". All 4 shafts get the same dimension label.

**3) Refer to All "M" Sheets (with the exception of M3.1) – Mechanical Plans**

In reference to these sheets (not attached), note that all existing flex duct and attached run-out duct to individual demoed diffusers is 6" round. Where these 6" flex and hard ducts attach to the duct trunks, (although not entirely clear on the drawings) there is an approximately 3-4" long stub piece of insulated 6" round hard duct extending from the trunk. Where new 8" round hard duct is attached (replacing the old 6" duct), the new manual balancing damper shall be 8", not 6".

**4) Refer to M3.1-1 – Mechanical Legend, Schedules, Details, and P&ID's**

In reference M3.1-1 (attached), note the Cold Supply Fan listed exceeded the internal dimensions of the AHU, the schedule has been updated to reflect a new Cold Supply Fan selection. Also, in Remark 11, the inch marks(") printed as question marks (?), the schedule has been updated to type out the word "inch".

**END OF ADDENDUM NO. 1**

DWG: F:\Projects\012-2549\ME\1-NE DAS NSOB HVAC\Constructs\Mech Schedules & Details\MSN1A.dwg  
 DATE: Jun 10, 2014 3:52pm XREFS: Xref - OA\_36x48 Xref - OA\_08x11 USER: chayes

## AHU FAN ARRAYS

DESIGNATION	CFW-1, -2, -3, -4	HFW-2, -3, -4 (NOT -1)	RFW-1, -2, -3, -4
DESCRIPTION	COLD SUPPLY FAN ARRAY	HOT SUPPLY FAN ARRAY	RETURN FAN ARRAY
LOCATION	AHU-1, 2, 3, 4	AHU-2, 3, 4 (NOT -1)	AHU-1, 2, 3, 4
SERVICE	SUPPLY FAN	SUPPLY FAN	RETURN FAN
AIR TEMPERATURE	55 - 78 DEG F	70 - 78 DEG F	70 - 78 DEG F
TYPE	FAN ARRAY	FAN ARRAY	FAN ARRAY
AIR FLOW RATE, CFM / AHU	100,000 PER AHU	62,500 PER AHU	90,000 PER AHU
FAN QUANTITY / AHU	16 PER AHU	16 PER AHU	12 PER AHU
CONFIGURATION	8 WIDE, 2 TALL	4 WIDE, 4 TALL	6 WIDE, 2 TALL
MAXIMUM DIMENSIONS (INCLUDES HOUSEKEEPING PAD)	274" WIDE, 133" TALL	142" WIDE, 133" TALL	274" WIDE, 132" TALL
ACTUAL DIMENSIONS	264" WIDE, 80" TALL	136" WIDE, 128" TALL	264" WIDE, 88" TALL
EXTERNAL STATIC PRESSURE, IN. W.C.	5.75" ESP	5.25" ESP	2.00" ESP
FAN WHEEL DIAMETER, CUT	18", 100%	16", 70%	22", 105%
FAN SPEED, RPM	2,908	3,247	1,617
FAN SPEED, HZ	99.1	56.0	27.9
POWER, HP	8.3	4.7	3.8
FAN SPEED, RPM (ONE FAN FAILED)	2,995	3,362	1,706
FAN SPEED, HZ (ONE FAN FAILED)	102.1	57.0	29.5
POWER, HP (ONE FAN FAILED)	8.9	5.1	4.3
MOTOR NAMEPLATE HP	9.0	5.5	4.5
VOLTS/PHASE/HZ	460 / 3 / 60	460 / 3 / 60	460 / 3 / 60
DRIVE	DIRECT	DIRECT	DIRECT
VARIABLE CONTROL	1 MICRO VFD DRIVE PER FAN	1 MICRO VFD DRIVE PER FAN	1 MICRO VFD DRIVE PER FAN
GRAVITY INLET DAMPERS	YES	YES	YES
MAXIMUM INLET SOUND @ 63 HZ, DB	104	97	96
MANUFACTURER	HUNTAIR	HUNTAIR	HUNTAIR
MODEL	-	-	-
REMARKS	ALL BUT 2 &12	ALL BUT 1	ALL BUT 2 &12

### REMARKS:

- VFD RATED MOTOR, MOTOR SHAFT GROUNDING KIT OR CERAMIC BEARINGS.
- PLC CABINET MAY HOUSE VFD'S, AND HAVE A COOLING FAN & INLET AIR FILTERS. VFD'S MAY ALSO BE LOCATED IN AHU AIRTEAM.
- ZERO DROP (0.05" WC) GRAVITY INLET BACKDRAFT DAMPERS, STANDARD COPLANER SOUND ATTENUATOR (NON-EXTENDED).
- AIR FLOW MEASUREMENT RING ON EACH FAN.
- PLC-CONTROLLED ARRAY OPTIMIZATION, COLOR DISPLAY, BACNET MSTP COMMUNICATION (ALL CAPABILITIES AVAILABLE AT THE BMS).
- ARRAY SHALL BE CAPABLE OF TURNING OFF INDIVIDUAL FANS, AND HAVE ONE VFD PER MOTOR (NOT ONE OR TWO VFD PER ARRAY).
- ARRAY SHALL DUTY CYCLE FANS.
- CLASS III FAN.
- ARRAYS SHALL BE CAPABLE OF MAINTAINING FLOW AND STATIC PRESSURE IN A ONE-FAN-FAILED CONDITION.
- FAN MOTORS SHALL HAVE 10% SPARE HP CAPACITY (NAMEPLATE) AT NO-FANS-FAILED CONDITION (FOR EXAMPLE, FAN DESIGN OPERATING POINT OF 6.8 HP ON A 7.5 HP NAMEPLATE MOTOR HP IS OK, 6.9 HP OPERATING HP IS NOT OK).
- EACH FAN/MOTOR ASSEMBLY (CUBE) SHALL BE REMOVABLE WHOLE THROUGH A 36 INCH WIDE OPENING (AFTER REMOVING VFD AND/OR BACKDRAFT DAMPER IF NEEDED), AND A 48 INCH X 48 INCH ACCESS DOOR LOCATED ON THE DISCHARGE SIDE OF THE FAN ARRAY.
- AND 1 HOT SUPPLY FAN ARRAY PREVIOUSLY INSTALLED.